SyncMaster 773DFX

index

- Main Page
- Safety Instructions
  - Notational
  - Power
  - Installation
  - Cleaning
  - Other
- Introduction
  - Unpacking
  - Front
  - Rear
  - Bottm
- Setup
  - Connecting Your Monitor
  - Base Installation
- On-Screen Display
- Troubleshooting
  - Check List
  - Q & A
  - Self-Test Feature Check
- Specifications
  - General Specifications
  - PowerSaver
  - Preset Timing Modes
- Information
  - Service
  - Terms
  - Regulatory
  - Natural Color
  - Authority

Notational

Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.

Warning / Caution

Failure to follow directions noted by this symbol could result in bodily harm or damage to equipment.

Notational Conventions

Prohibited

Important to read and understand at all times

Do not disassemble

Disconnect the plug from the outlet

Do not touch

Grounding to prevent an electric shock

Power

When not used for extended periods of time, set your PC to DPMS. If using a screen saver, set it to the active screen mode.

- If the size of your monitor is small, or if the same image is present for long periods of time, you may see afterimages due to damage to the fluorescent substance on the inside of the CRT.

Do not use a damaged or loose plug.

- This may cause an electric shock or fire.

Do not pull the plug out by the wire nor touch the plug with wet hands.

- This may cause an electric shock or fire.

Use only a properly grounded plug and recepticle.

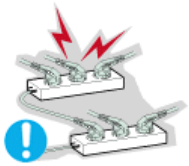
- An improper ground may cause electric shock or equipment damage.

Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.

- Failure to do so may cause an electric shock or fire.

Disconnect the plug from the outlet during storms or lightening or if it is not used for a long period of time.

- Failure to do so may cause an electric shock or fire.



Do not connect too many extension cords or plugs to an outlet.

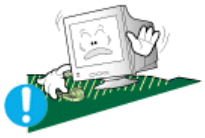
- This may cause a fire.

Installation

- **Do not cover the vents on the monitor cabinet.**
  - Bad ventilation may cause a breakdown or fire.

- **Put your monitor in a location with low humidity and a minimum of dust.**
  - An electric shock or fire could result inside the monitor.

- **Do not drop the monitor when moving it.**
  - This may cause damage to the product or human body.



- **Place the monitor on a flat and stable surface.**
  - The monitor can cause injury by falling.

- **Set down the monitor carefully.**
  - It could be damaged or broken.

- **Do not place the monitor face down.**
  - The CRT surface may be damaged.

- **Do not use the monitor without the monitor stand.**
  - It could break down or cause a fire due to bad ventilation.
  - If the monitor must be used without the supplied stand, take steps to insure proper ventilation.

Cleaning

When cleaning the monitor case or the surface of the CRT, wipe with a slightly moistened, soft fabric.
Do not clean Flat monitor with water. Use a water-diluted mild detergent.

(Some detergents contain significant amounts of alcohol-based solvents, which can damage (color change) or crack the monitor case. The antiglare/anti-static surface coating on the CRT may also be affected.)

Dilute the detergent (1:10 ratio) with water before using.

- **Do not spray detergent directly on the monitor.**

- **Use the recommended detergent with a smooth cloth.**
  - You can prevent the coated CRT from being damaged or the monitor cabinet from being dissolved, cracked or discolored.
  - You can buy a recommended detergent at any Samsung Service Center.

	Caution: Use a recommended detergent only, as other surfactants containing large amounts of alcohol, solvent or other strong substances, can discolor or crack the monitor or damage the coated CDT.

- **If the connector between the plug and the pin is dusty or dirty, clean it properly with a dry cloth.**
  - A dirty connector can cause an electric shock or fire.

- **Do not set a glass of water, chemicals or any small metal objects on the monitor.**
  - This may cause damage, electric shock or a fire.
  - If a foreign substance gets into the monitor, disconnect the plug and then contact a service center.

Other

- **Do not remove cover(or back). No user serviceable parts inside.**
  - This may cause an electric shock or a fire.
  - Refer servicing to qualified service personnel.

- **If your monitor does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and** contact an authorized dealer or service.
  - This may cause an electric shock or a fire.

- **Do not place any heavy objects on the monitor.**
  - This may cause an electric shock or a fire.

- **For each hour of looking at the monitor, you should let your eyes rest for 5 minutes.**
  - This will reduce eye fatigue.

- **Do not use or store inflammable substances near the monitor.**
  - This may cause an explosion or fire.

- **Do not try to move the monitor by pulling on the wire or the signal cable.**
  - This may cause a breakdown, electric shock or a fire due to damage to the cable.

Other

- **Do not move the monitor right or left by pulling only the wire or the signal cable.**
  - This may cause a breakdown, electric shock or a fire due to damage to the cable.

- **Never insert anything metallic into the monitor openings.**
  - This may cause an electric shock, fire or injury.

- **Keep the monitor away from any magnetic substances.**
  - This may cause discoloring or distortion of the image.

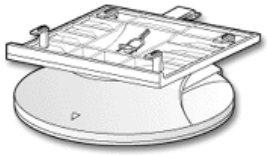
Unpacking

- **Monitor and Stand**

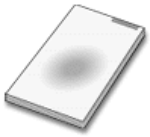
(Some models include a stand attached.)
Please make sure the following items are included with your monitor. If any items are missing,
contact your dealer.

- **Power Cord**

- **Stand**

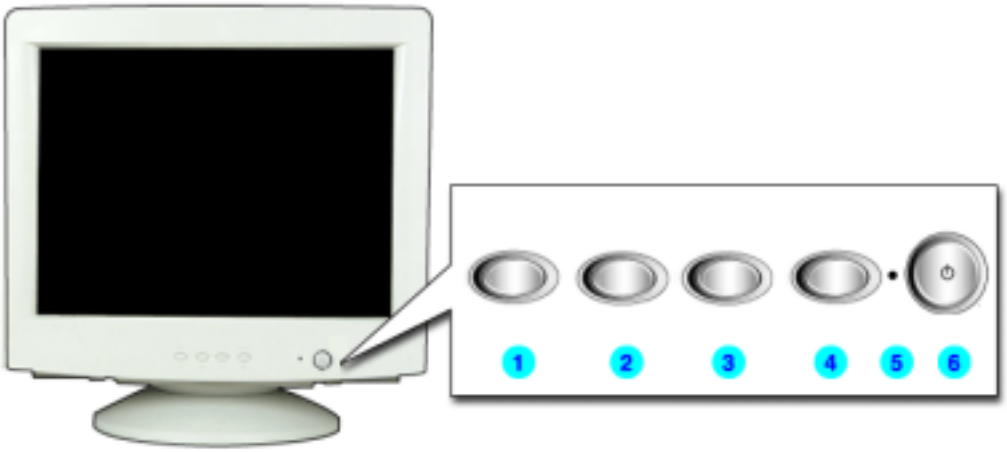


- **Quick Setup Guide**



- **Warranty Card**
(Not available in all locations)

Front



1. Exit button	Use this button to Exit the active menu or the OSD.
2,3. Adjust buttons	These buttons allow you to highlight and adjust items in the menu.
4. Menu button	Use this button to open the OSD and activate a highlighted menu item.
5. Power indicator	This light glows green during normal operation, and blinks green once as the monitor saves your adjustments.
6. Power button	Use this button to turn the monitor on and off.

Note: See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.

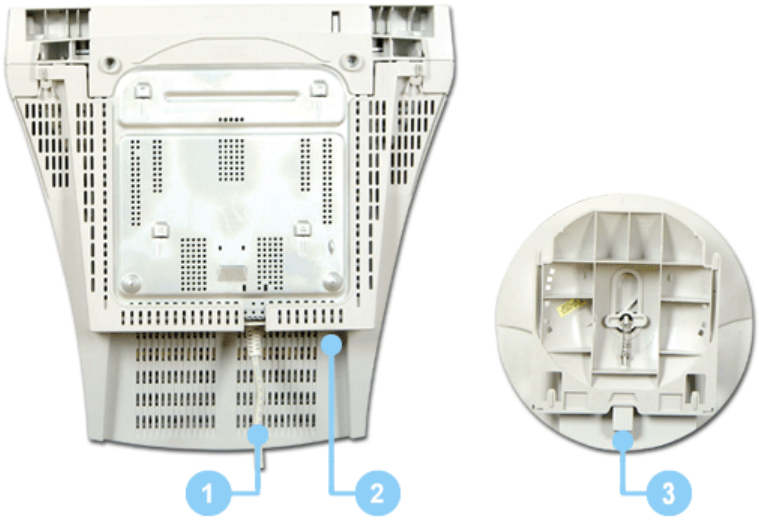
Rear

(The configuration at the back of the monitor may vary from product to product.)

1. Power port	Connect the power cord for your monitor to the power port on the back of the monitor.
2. Signal Cable	Connect the signal cable to the video port on your computer, video board, video card, or graphics card.

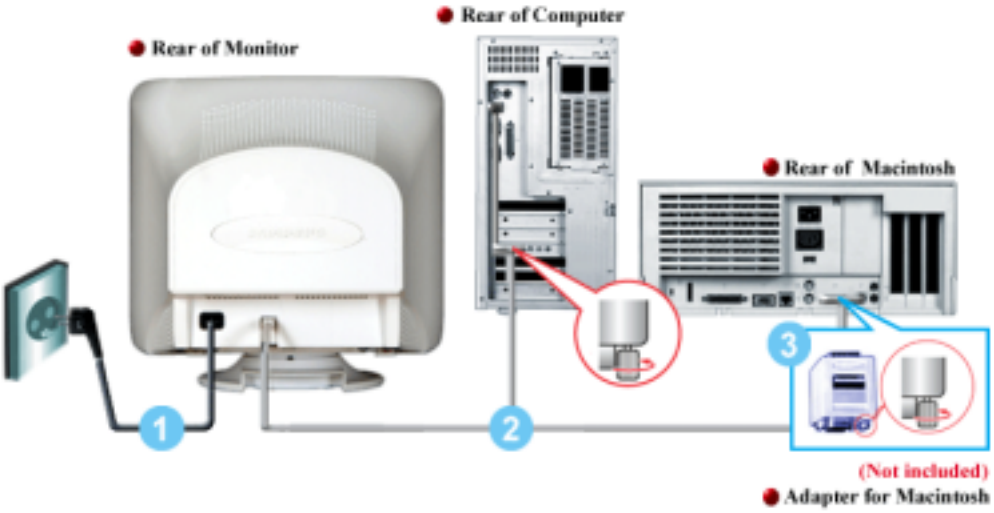
Note: See Connecting Your Monitor for further information regarding cable connections.

Bottom



1. Signal Cable	Connect the signal cable to the video port on your computer, video board, video card, or graphics card.
2. Power port	Connect the power cord for your monitor to the power port on the back of the monitor.
3. Tilt/Swivel Base	You can separate the base from the monitor.

Connecting Your Monitor



1. Connect the power cord for your monitor to the power port on the back of the monitor. Plug the power cord for the monitor into a nearby outlet.

2. Connect the signal cable to the video port on your computer, video board, video card, or graphics card.

3. If you are using a Macintosh computer, connect the cable to a Macintosh adapter, and set the pins on your adapter(Adapter not included). A PC-compatible computer does not need an adapter.

4. Turn on your computer and monitor. If your monitor displays an image, installation is complete.

Base Installation

Tilt/Swivel Base

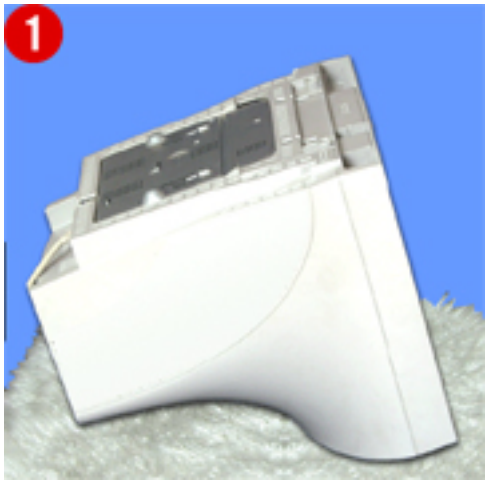
With the built-in pedestal, you can tilt and/or swivel the monitor for the most comfortable viewing angle.

Note: The base is detachable.

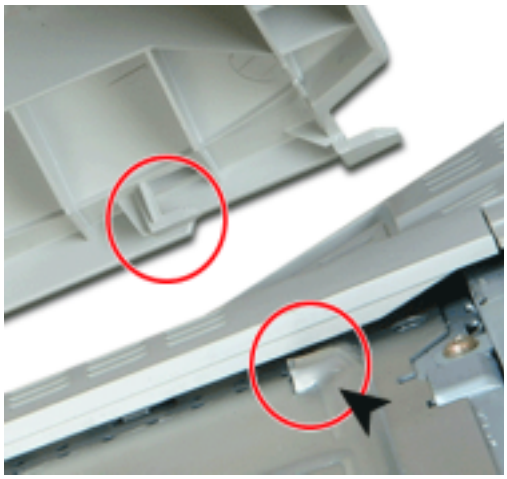
Base Installation

Attaching and Removing the Bose

1 Attaching the Base



1. Place the monitor upside-down on a flat work surface.



2. Align the tabs on the base with the corresponding slots on the bottom of the monitor.

3.Press the base onto the monitor until the tabs are fully engaged in the slots.

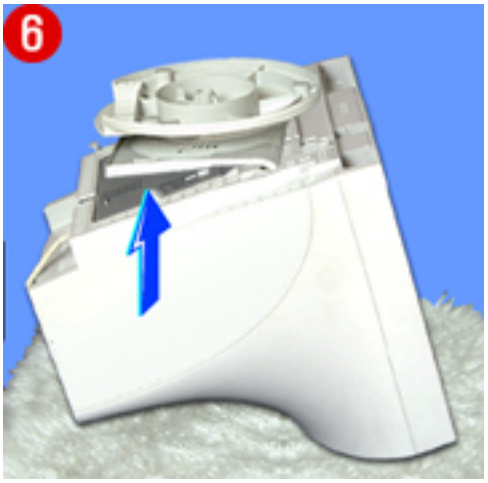
4. Push the base toward the front of the monitor until the release latch clicks into the locked position.
* Do not bend the snap.

Base Installation

Attaching and Removing the Bose

2 Removing the Base

5. Squeeze and pull up on the release latch on the base.



6. Push the base toward the back of the monitor and lift up to remove the base.

Note: The base will align with the monitor slots in only one position.

On Screen Display (OSD) Menu System

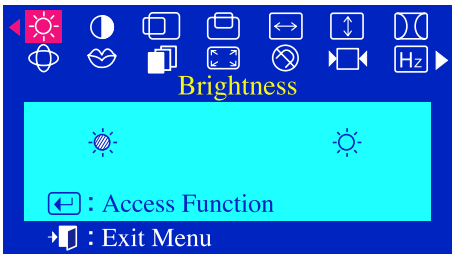
1 Use this button to open the OSD and activate a highlighted menu item.

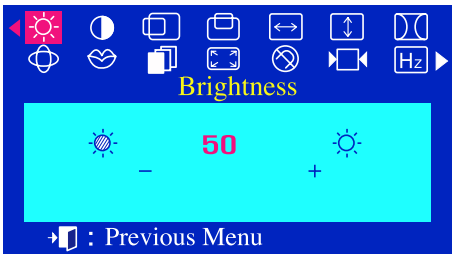
2.3 Use these buttons to highlight and adjust items using the On Screen Display. These buttons are also direct access buttons for the contrast and brightness feature.

4 Use this button to Exit the active menu or the OSD.

On Screen Display (OSD) Menu System

Menu How to adjust

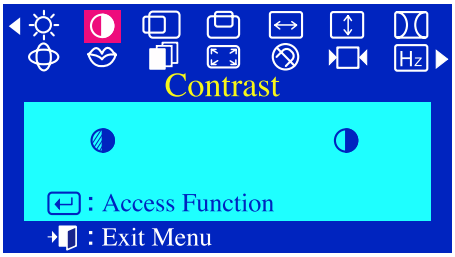


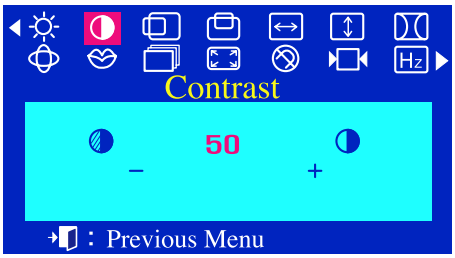


Brightness

Adjust the Brightness.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Brightness** screen is displayed.
3. Push the menu button to open the **Brightness** adjustment screen.
4. Use the + button to increase the brightness or - button to decrease the brightness.





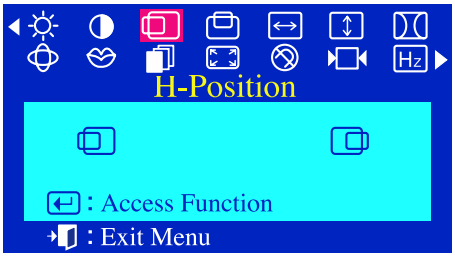
Contrast

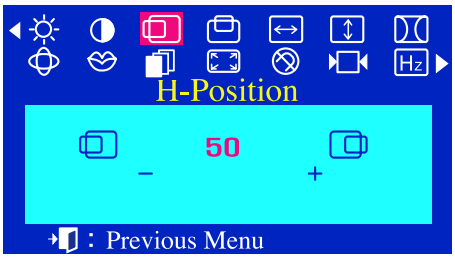
Adjust the Contrast.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Contrast** screen is displayed.
3. Push the menu button to open the **Contrast** adjustment screen.
4. Use the + button to increase the contrast or - button to decrease the contrast.

On Screen Display (OSD) Menu System

Menu How to adjust

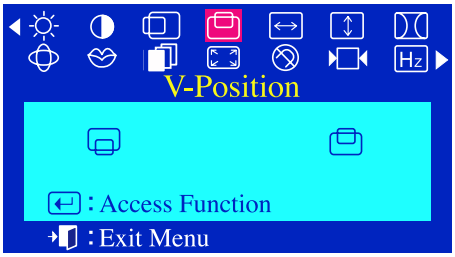


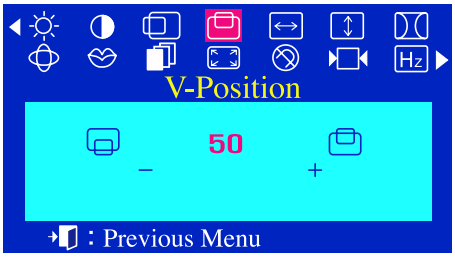


H-Position

Follow these instructions to change the Position of the monitor's entire display.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **H-Position** screen is displayed.
3. Push the menu button to open the **H-Position** adjustment screen.
4. Use the - and + buttons to change the Horizontal position of the monitor's viewing area.





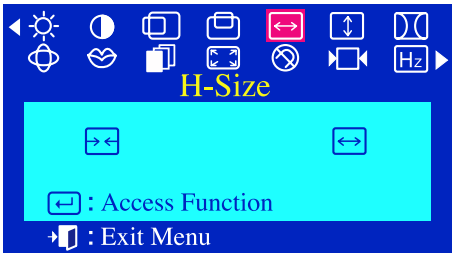
V-Position

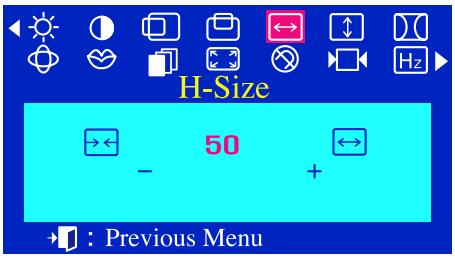
Follow these instructions to change the Position of the monitor's entire display.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **V-Position** screen is displayed.
3. Push the menu button to open the **V-Position** adjustment screen.
4. Use the - and + buttons to change the vertical position of the monitor's viewing area.

On Screen Display (OSD) Menu System

Menu How to adjust

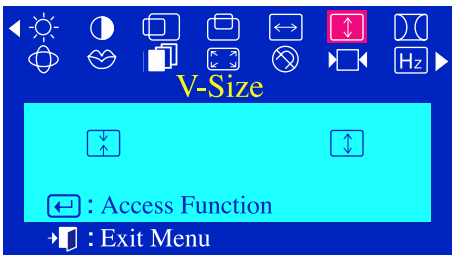


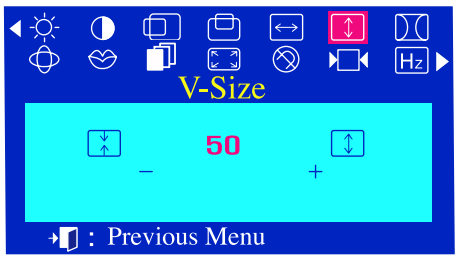


H-Size

Follow these instructions to change the Size of the monitor's entire display.

1. With the menu off, push the menu ↵ button.
2. Push the - button or + button until the **H-Size** screen is displayed.
3. Push the menu ↵ button to open the **H-Size** adjustment screen.
4. Use the - and + buttons to change the Horizontal Size of the monitor's viewing area.





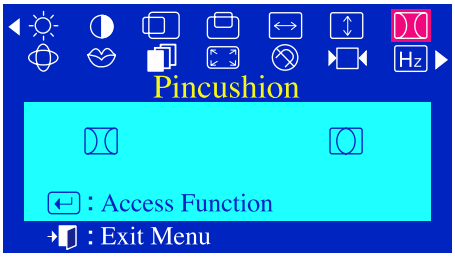
V-Size

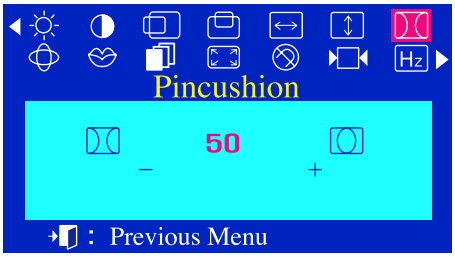
Follow these instructions to change the Size of the monitor's entire display.

1. With the menu off, push the menu ↵ button.
2. Push the - button or + button until the **V-Size** screen is displayed.
3. Push the menu ↵ button to open the **V-Size** adjustment screen.
4. Use the - and + buttons to change the Vertical Size of the monitor's viewing area

On Screen Display (OSD) Menu System

Menu How to adjust

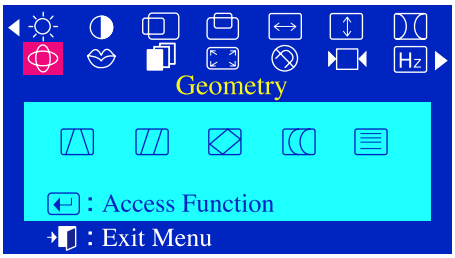


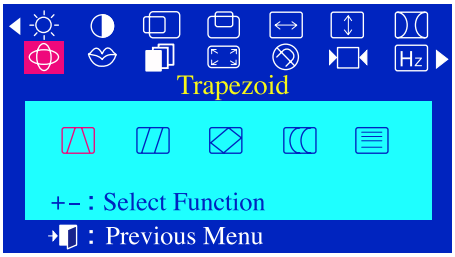


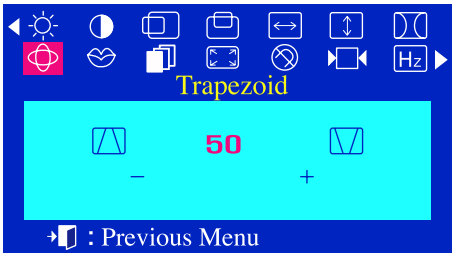
Pincushion

Adjust the pincushion setting when the sides of the display are bowed in or bowed out

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Pincushion** screen is displayed.
3. Push the menu button to open the **Pincushion** adjustment screen.
4. Use the - button or + button to adjust the pincushion setting.







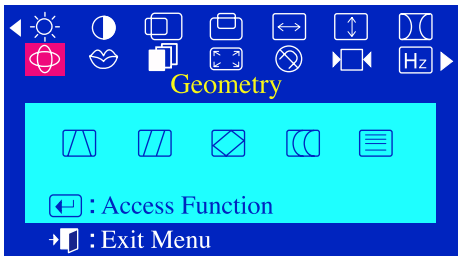
Trapezoid

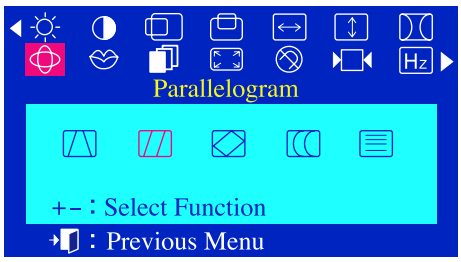
Adjust the trapezoid setting when the top or bottom of the display is too large or small.

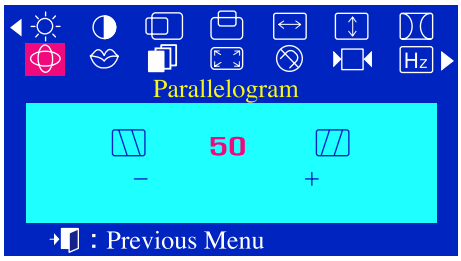
1. With the menu off, push the menu button.
2. Push the - button or + button until the **Geometry** screen is displayed.
3. Push the menu button again and then press the - or + button until the **Trapezoid** screen appears.
   Push the menu button to open the **Trapezoid** adjustment screen.
4. Use the - button or + button to adjust the trapezoid setting.

On Screen Display (OSD) Menu System

Menu How to adjust



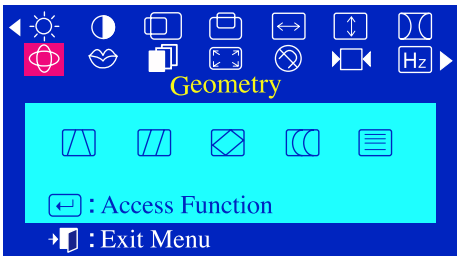


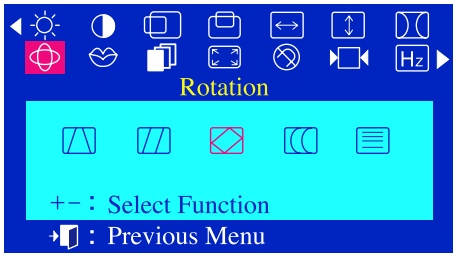


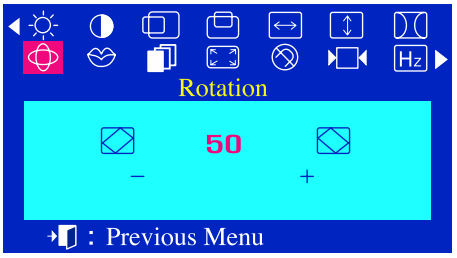
Parallelogram

Adjust the parallelogram setting when the display is leaning left or right.

1. With the menu off, push the menu ↵ button.
2. Push the - button or + button until the **Geometry** screen is displayed.
3. Push the menu ↵ button again and then press the - or + button until the **Parallelogram** screen appears.
   Push the menu ↵ button to open the **Parallelogram** adjustment screen.
4. Use the - button or + button to adjust the parallel setting.







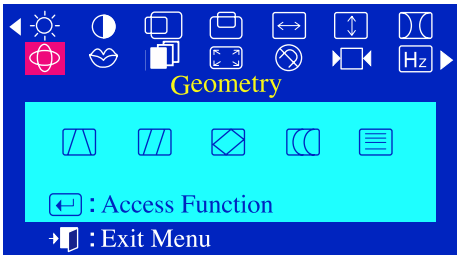
Rotation

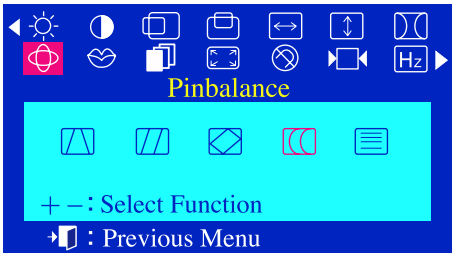
Adjust the rotation setting when the entire display is tilted left or right.

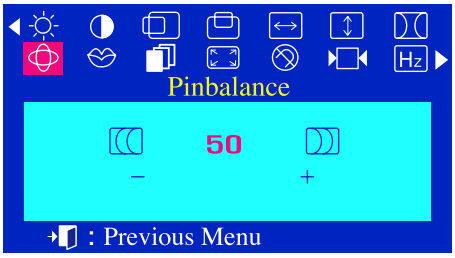
1. With the menu off, push the menu ↵ button.
2. Push the - button or + button until the **Geometry** screen is displayed.
3. Push the menu ↵ button again and then press the - or + button until the **Rotation** screen appears.
   Push the menu ↵ button to open the **Rotation** adjustment screen.
4. Use the - button or + button to adjust the rotation setting.

On Screen Display (OSD) Menu System

Menu How to adjust



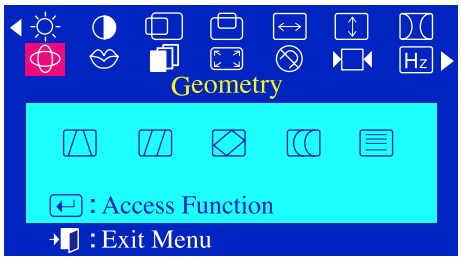


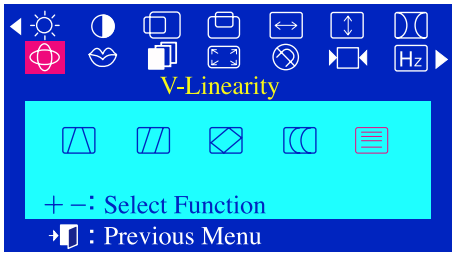


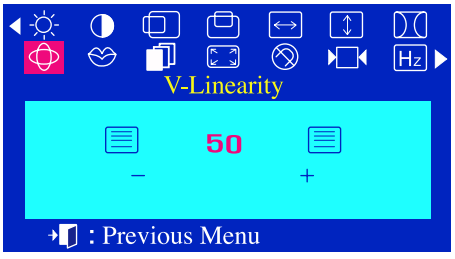
Pinbalance

Adjust the pinbalance setting when the sides of the display are bowed towards the left or right.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Geometry** screen is displayed.
3. Push the menu button again and then press the - or + button until the **Pinbalance** screen appears.
   Push the menu button to open the **Pinbalance** adjustment screen.
4. Use the - button or + button to adjust the pinbalance setting.







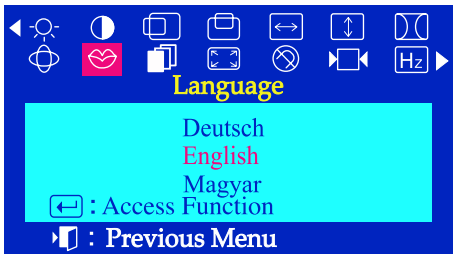
V-Linearity

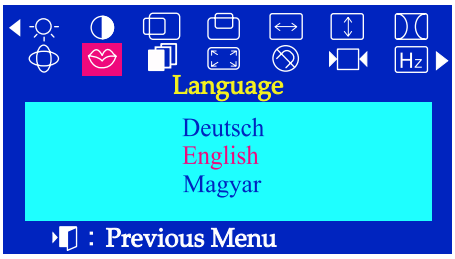
Adjust the linearity setting when the display image is compressed at the left, right or top, bottom.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Geometry** screen is displayed.
3. Push the menu button.
   Push the - button or + button until the **V-Linearity** screen is displayed.
   Push the menu button to open the **V-Linearity** adjustment screen.
4. Use the - button or + button to adjust the vertical linearity.

On Screen Display (OSD) Menu System

Menu How to adjust





Language

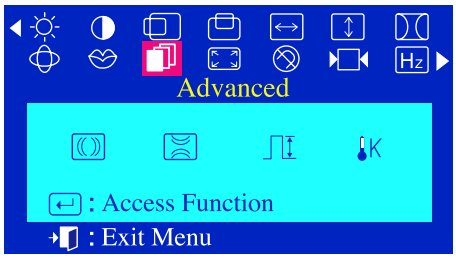
Follow these steps to change the language used in the menu.
You can choose one of ten languages.
English,German,French, Italian, Portuguese, Spanish, Swedish, Russian, Polish, or Magyar.
(Some OSD languages may not appear in some areas.)

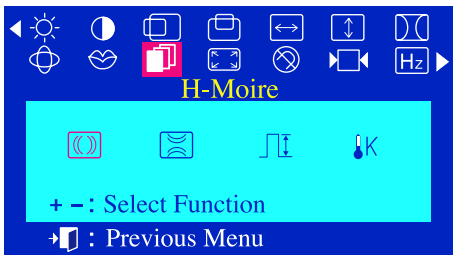
1. With the menu off, push the menu button.
2. Push the - button or + button until the **Language** screen is displayed.
3. Push the menu button to open the **Language** selection screen.
4. Use the - button or + button to select the language you would like to use.

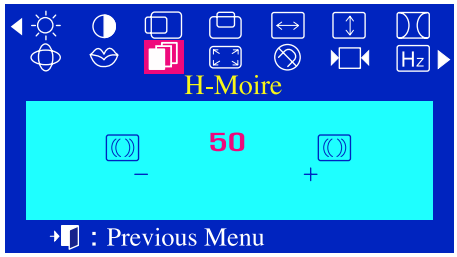
Note The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.

On Screen Display (OSD) Menu System

Menu How to adjust



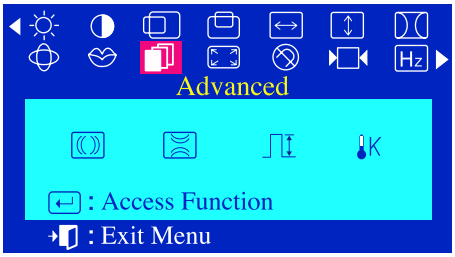


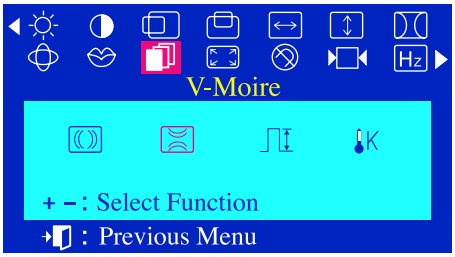


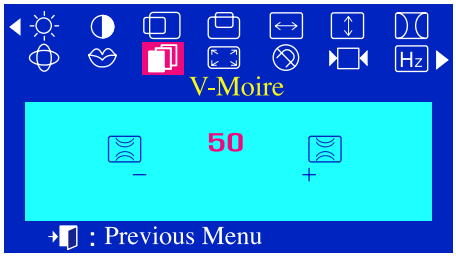
H-Moire

A “Moiré” pattern can appear on your screen, looking like a series of concentric circles or arcs. To eliminate this pattern, use the clear moiré adjustments.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Advanced** screen is displayed.
3. Push the menu button again and then press the - or + button until the **H-Moire** screen appears.
   Push the menu button to open the **H-Moire** adjustment screen.
4. Use the - button or + button to adjust horizontal moiré.





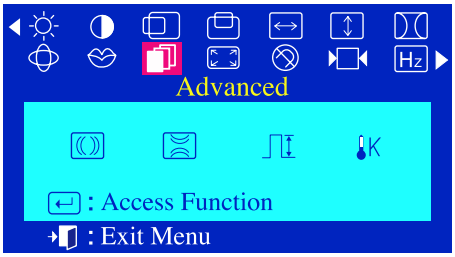


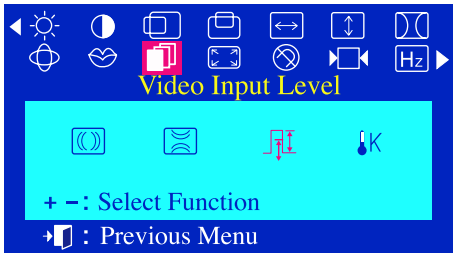
V-Moire

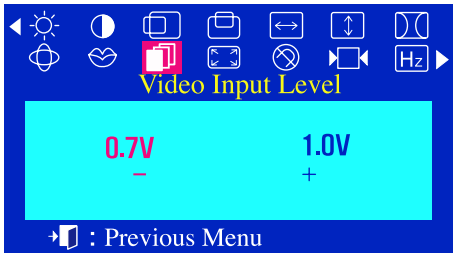
A “Moiré” pattern can appear on your screen, looking like a series of concentric circles or arcs. To eliminate this pattern, use the clear moiré adjustments.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Advanced** screen is displayed.
3. Push the menu button again and then press the - or + button until the **V-Moire** screen appears.
   Push the menu button to open the **V-Moire** adjustment screen.
4. Use the - button or + button to adjust vertical moiré.

Menu How to adjust







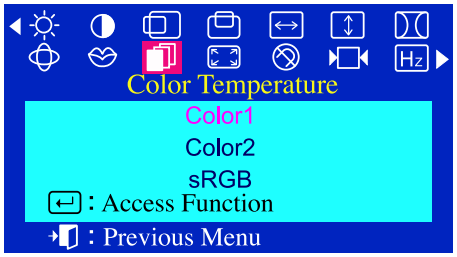
Video Input Level

Some video cards use video signals higher than 1.0V which causes the display to be very bright. For those video cards, use this feature to select the 1.0V Level.

1. With the menu off, push the menu button.
2. Push the - button or +button until the **Advanced** screen is displayed.
3. Push the menu button again and then press the - or + button until the **Video Input Level** screen appears.
   Push the menu button to open the **Video Input Level** selection screen.
4. Use the - button or + button to select 0.7 V or 1.0 V.

On Screen Display (OSD) Menu System

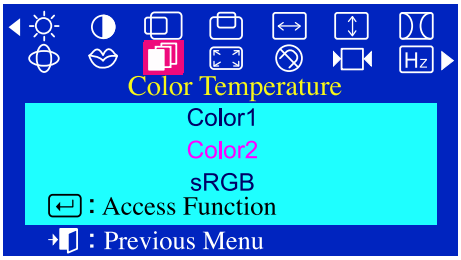
Menu How to adjust



Color 1

- Color temperature is a measure of the 'warmth' of the image colors. The available range is between 5000 to 9300k.

1. Push the **Menu** button.
2. Push the [**-**] button or [**+**] button until the Color screen is displayed**.** Use the - button or + button to select **Color1**.
3. Push the **Menu** button to open the **Color1** adjustment screen.
4. Adjust the **color temperature** as close to



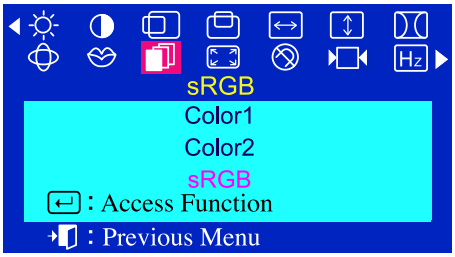
Color 2

- Color temperature is a measure of the 'warmth' of the image colors. The available range is between 5000 to 9300k.

1. Push the **Menu** button.
2. Push the [**-**] button or [**+**] button until the Color screen is displayed**.** Use the - button or + button to select **Color2**.
3. Push the **Menu** button to open the **Color2** adjustment screen.
4. Adjust the **color temperature** as close to

On Screen Display (OSD) Menu System

Menu How to adjust

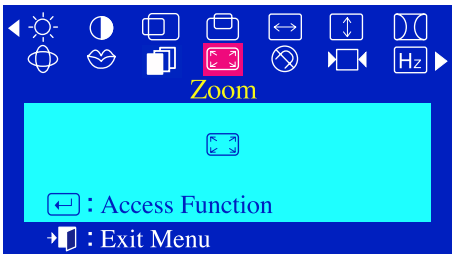


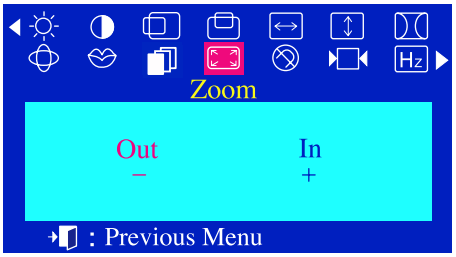
sRGB

- When you adjust the Brightness and Contrast after **sRGB** mode is selected, **sRGB** mode exits.

1. Push the **Menu** button.

2. Push the [-] button or [+] button until the **Color** screen is displayed**.**
   Push the [-] button or [+] button to select **Color1**, **Color2** or **sRGB.**





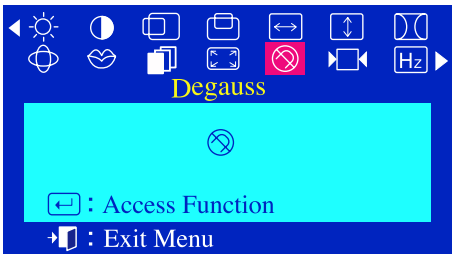
Zoom

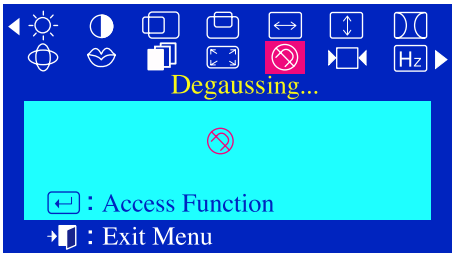
Follow these instructions to get a close-up or a longshot view of the monitor's viewing area.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Zoom** screen is displayed.
3. Push the menu button to open the **Zoom** adjustment screen.
4. Use the - button to decrease the screen viewing area.
   Use the + button to enlarge the screen viewing area.

On Screen Display (OSD) Menu System

Menu How to adjust



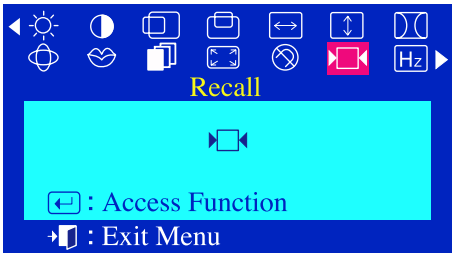


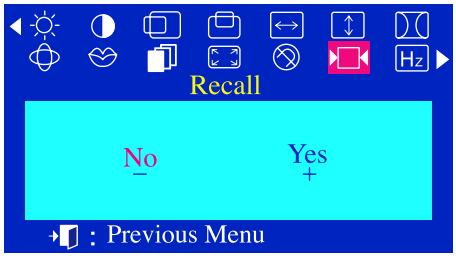
Degauss

The Degauss feature will remove color impurities caused by magnetic fields.
You can use this function to turn on the power of the monitor or change the power saving mode to the normal mode.
Do not use the Degauss feature more than once within a 30-minute period.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Degauss** screen is displayed.
3. Push the menu button to execute the degauss function. The degaussing screen will appear.

Note The monitor may buzz momentarily, the image colors may change and the image will jiggle for a few seconds. These effects are normal.





Recall

Use the recall feature to reset these monitor settings to their original levels: Position, Size, Pincushion, Trapezoid, Parallelogram, Pinbalance, Rotation, H-Moire and V-Moire.

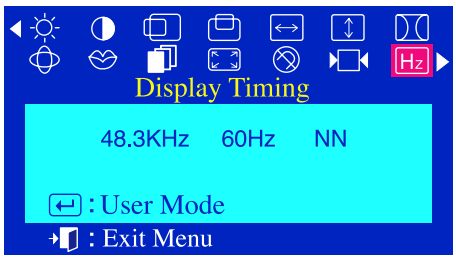
1. With the menu off, push the menu button.
2. Push the - button or + button until the **Recall** screen is displayed.
3. Push the menu button to open the **Recall** adjustment screen.
4. Push the + button to select **Yes**. If you don't want to reset the monitor, use the - button to select **No**.

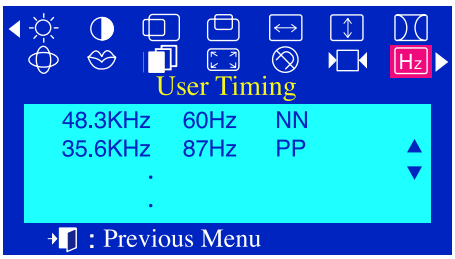
Note If you have selected "Yes", all settings listed above will be reset. All other settings will remain the same.

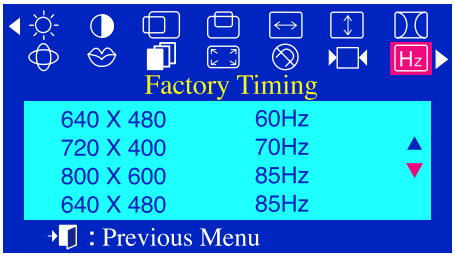
CAUTION This operation resets all of the data in the user memory area for the current timing signal.

On Screen Display (OSD) Menu System

Menu How to adjust





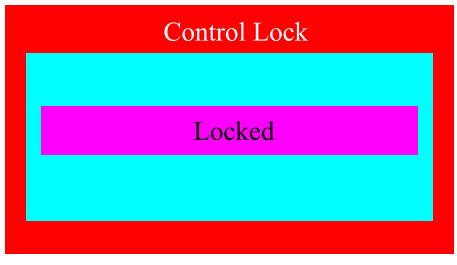


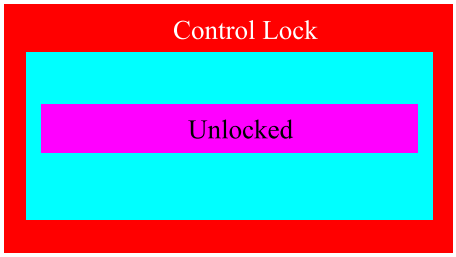
Display Timing

The information on this screen shows Display Timing , User Timing and Factory Timing.

1. With the menu off, push the menu button.
2. Push the - button or + button until the **Display Timing** screen is displayed.
3. Push the menu button to open the **Display Timing** adjustment screen.
4. Use the - button to see user control mode and thedefault mode.

Note You can see the frequency(user control mode) used by the user, the polarity of the operational signals, the default frequency(default mode) set when you buy the monitor and the resolution level.





OSD Lock/Unlock

1. Push and hold in the menu button for 10 seconds or more to Lock the OSD.
   (In this case, even if you click the menu button the control screen will not be printed.)
2. Push and hold in the menu button for 10 seconds or more to Unlock the OSD.

Troubleshooting

Note **Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the warranty card, the phone number on the Information section or contact your dealer.**

Symptom	Check List	Solutions
No images on the screen. I cannot turn on the monitor.	Is the power cord connected properly?	Check the power cord connection and supply.
	Can you see "**No Connection, Check Signal Cable**" on the screen?	Check the signal cable connection.
	If the power is on, reboot the computer to see the initial screen(the login screen), which can be seen.	If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows ME/XP/2000) and then change the frequency of the video card. (Refer to the Preset Display Modes) Note: If the initial screen (the login screen) does not appear, contact a service center or your dealer.
	Can you see "**Sync. Out of Range**" on the screen?	You can see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can properly handle. Adjust the maximum resolution and frequency that the monitor can properly handle.
	There is no image on the screen. Is the power indicator on the monitor blinking at 1 second intervals?	The monitor is in PowerSaver mode. Press a key on the keyboard or move the mouse to activate the monitor and restore the image on the screen.
I cannot see the On Screen Display.	Have you locked the **On Screen Display (OSD)** Menu to prevent changes?	Unlock the OSD by pressing the MENU button for at least 10 seconds.

Troubleshooting

Symptom	Check List	Solutions
The image on the screen is shaking.	Check the monitor configuration to see if it is in Interlace Mode. (Interlace Mode: Vertical frequency 43Hz, 87Hz(i), etc)	The signal from the video card exceeds the maximum resolution and frequency of the monitor.
	Are there any magnetic products such as a power adapter, speaker or a high voltage wire near by?	Move the monitor away from anything that can create a strong magnetic field.
	Is the voltage stable?	The screen image can appear to shake or vibrate at a particular time of day due to low supply voltage.
	The screen image can also appear to shake or vibrate if there is a problem with the video card or the computer's main board.	
The screen shows strange colors or just black and white.	Is the screen displaying only one color as if looking at the screen through a cellophane paper?	Check the signal cable connection. Make sure the video card is fully inserted in it's slot.
	Have the screen colors become strange after running a program or due to a crash between applications?	Reboot the computer.
	Has the video card been set properly?	Set the video card by referring to the video card manual.
The screen suddenly has become unbalanced.	Have you changed the video card or the driver?	Adjust screen image position and size using the OSD.
	Have you adjusted the resolution or frequency to the monitor?	Adjust the resolution and frequency at the video card. (Refer to the Preset Display Modes).
	The screen can be unbalanced due to the cycle of the video card signals. Readjust Position by referring to the OSD.	

Troubleshooting

Symptom	Check List	Solutions
The screen is out of focus or OSD cannot be adjusted.	Have you adjusted the resolution or frequency on the monitor?	Adjust the resolution and frequency of the video card. (Refer to the Preset Display Modes).
The screen is partially distorted.	Are there any magnetic products such as an adapter, speaker or a high voltage wire near the monitor?	Enter the OSD and perform a "Degauss". Keep the monitor away from any magnetic products.
LED is blinking but no images on the screen.	Is the frequency properly adjusted when checking the Display Timing on the menu?	Adjust the frequency properly by referring to the video card manual and the Preset Display Modes. (The maximum frequency per resolution may differ from product to product.)
There are only 16 colors shown on the screen. The screen colors have changed after changing the video card.	Have the Windows colors been set properly?	For Windows ME/XP/2000: Set the colors properly at the **Control Panel**, **Display**, **Settings**.
	Has the video card been set properly?	Set the video card by referring to the video card manual.

Check the following items if there is trouble with the monitor.

1. Check if the power cord and the cable are properly connected to the computer.
2. Check if the computer beeps more than 3 times when booting.
   (If it does, request an after-service for the main board of the computer.)
3. Check if the scanning ratio of the video screen is set at 75Hz or 85Hz.
   (Do not exceed 60Hz when using the maximum resolution.)
4. If you have problems in installing the adapter (video) driver, boot the computer in Safe Mode, remove the Display Adapter at the "**Control Panel**, **System**, **Device Administrator**" and then reboot the computer to reinstall the adapter (video) driver.

Q & A

Question	Answer
How can I change the frequency?	Frequency can be changed by reconfiguring the video card. Note that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)
How can I adjust the resolution?	Windows ME/XP/2000: Set the resolution at the **Control Panel**, **Display**, **Settings**. * Contact the video card manufacturer for details.
How can I set the Power Saving function?	Windows ME/XP/2000: Set the function at BIOS-SETUP of the computer or the screen saver. (Refer to Windows/ Computer Manual).
The monitor makes a sound when it is turned on.	This is normal as some sound may be generated when the metal case and the electromagnet, which are installed to block any electromagnetic waves, interact with each other.
How can I clean the outer case/LCD Panel?	Disconnect the power cord and then clean the monitor with a soft cloth, using either a cleaning solution or plain water. Do not leave any remains of the detergent nor scratch the case. Do not allow any water to go inside the monitor.

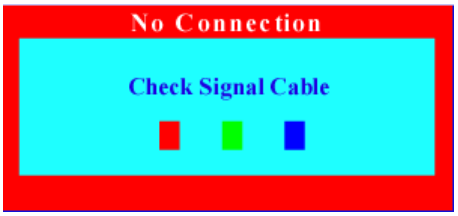
Self-Test Feature Check

Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.

Self-Test Feature Check

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn on the monitor.

   If your monitor works normally, the following screen appears.



   Failure of any of the boxes to appear indicates a problem with your monitor. This box also appears during normal operation if the video cable becomes disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

   If your monitor screen remains blank after using the previous procedure, check your video controller and computer system; your monitor is functioning properly.

Warning Messages

If there is something wrong with the input signal, a message appears on the screen or the screen goes blank although the power indicator LED is still on. The message may indicate that the monitor is out of scan range or that you need to check the signal cable.

Self-Test Feature Check

Environment

The location and the position of the monitor may influence the quality and other features of the monitor.

1. If there are any woofer speakers near the monitor, unplug and relocate the woofer to another room.
2. Remove all electronic devices such as radios, fans, clocks and telephones that are within 3 feet (one meter) of the monitor.
3. Degauss the monitor if any devices were removed from the area.

Useful Tips

- A monitor recreates visual signals received from the PC. Therefore, if there is trouble with the PC or the video card, this can cause the monitor to become blank, have poor coloring, noise, Sync. Out of Range, etc. In this case, first check the source of the problem, and then contact a service center or your dealer.
- **Judging the monitor's working condition**
  If there is no image on the screen or an "Sync. Out of Range" message comes up, disconnect the cable from the computer while the monitor is still powered on.
  - If there is a message coming up on the screen or if the screen goes white, this means the monitor is in working condition.
  - In this case, check the computer for trouble.

General Specifications

General	
Model Name	SyncMaster 773DFX
Picture Tube	
Type	17"(43cm) DynaFlat X (40.6cm viewable)
Deflection angle	90 °
Dot Pitch	0.20mm (Horizontal)
Screen type	Aluminized tri-color phosphor dot trio with black matrix. Anti-doming invar shadow mask. Multi-layer coated with anti-static.
Maximum Resolution	
1280 Dots, 1024 Lines	
Active Display	
Horizontal	312 ± 4 mm
Vertical	234 ± 4 mm
Synchronization	
Horizontal	30 ~ 70 kHz
Vertical	50 ~ 160 Hz
Input Signal Definition	
Video Signal	RGB, Analog 0.7 Vpp positive at 75 ohms
Sync Signal	Separate H/V sync, TTL level, positive or negative
Display Color	
Unlimited	
Maximum Pixel Clock	
110 MHz	
Power Supply	
90 ~ 264VAC rms, 60/50 Hz ± 3Hz	
Power Consumption	
80W (Nom.)	
Dimensions (WxDxH)	
402 x 411 x 357mm (with Stand)	
Weight	
15.5 kg	
Environmental considerations	
Operating Temperature 32°F ~ 104°F(0°C ~ 40°C) Humidity 10% ~ 80%, non-condensing Storage Temperature -4°F ~113°F (-20°C ~ 45°C) Humidity 5% ~ 95%, non-condensing	
Plug and Play Capability	
This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.	

Note: Design and specifications are subject to change without prior notice.

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power-off Mode EPA/ENERGY 2000
Power Indicator	Green	Green, Blinking
Power Consumption	80W(Nominal)	Less than 2W

This monitor is EPA ENERGY STAR® compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPMS functionality.
As an ENERGY STAR® Partner, SAMSUNG has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Table 1. Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 640 x 480	43.269	85.008	36.000	-/-
VESA, 800 x 600	53.674	85.061	56.250	+/+
VESA, 1024 x 768	68.677	84.997	94.500	+/+

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit: Hz

Service Center

- **U.S.A. :**
  Samsung Computer Products Customer Service
  400 Valley Road, Suite 201, Mt. Arlington, NJ 07856
  Tel. : (973)601-6000, 1-800-SAMSUNG (1-800-726-7864)
  Fax. : (973)601-6001
  http://www.samsungusa.com/monitor/

- **BRAZIL :**
  Samsung Eletronica da Amazonia Ltda.
  R. Prof. Manoelito de Ornellas, 303, Terro B
  Chacara Sto. Antonio, CEP : 04719-040
  Sao Paulo, SP
  SAC : 0800 124 421
  http://www.samsung.com.br/

- **CANADA :**
  Samsung Electronics Canada Inc.
  7037 Financial Drive
  Mississauga, Ontario L5N 6R3
  Tel. : 1-800-SAMSUNG (1-800-726-7864)
  Fax. : (905) 542-1199
  http://www.samsung.ca/

- **COLOMBIA :**
  Samsung Electronics Colombia
  Cra 9 No 99A-02 Of. 106
  Bogota, Colombia
  Tel.: 9-800-112-112
  Fax: (571) 618 - 2068
  http://www.samsung-latin.com/
  e-mail : soporte@samsung-latin.com

- **PANAMA :**
  Samsung Electronics Latinoamerica(Z.L.) S.A.
  Calle 50 Edificio Plaza Credicorp, Planta Baja
  Panama
  Tel. : (507) 210-1122, 210-1133
  Tel : 800-3278(FAST)
  http://www.samsung-latin.com/

- **PERU**
  Servicio Integral Samsung
  Av.Argentina 1790 Lima1. Peru
  Tel: 51-1-336-8686
  Fax: 51-1-336-8551
  http://www.samsungperu.com/

- **GERMANY :**
  TELEPLAN Rhein-Main GmbH
  Feldstr. 16
  64331 Weiterstadt
  T. 06151/957-1306
  F. 06151/957-1732
  * EURO 0,12/MIN.
  http://www.samsung.de/

- **AUSTRALIA :**
  Samsung Electronics Australia Pty Ltd.
  Customer Response Centre
  7 Parkview Drive, Homebush Bay NSW 2127
  Tel : 1300 362 603
  http://www.samsung.com.au/

- **ITALY :**
  Samsung Electronics Italia S.p.a.
  Via C. Donat Cattin, 5
  20063 Cernusco s/Naviglio (MI)
  Servizio Clienti: 199.153.153
  http://www.samsung-italia.com/

- **ESPAÑA :**
  Samsung Electronics Comercial Iberica, S.A.
  Ciencies, 55-65 (Poligono Pedrosa) 08908
  Hospitalet de Llobregat (Barcelona)
  Tel. : (93) 261 67 00
  Fax. : (93) 261 67 50
  http://samsung.es/

- **United Kingdom :**
  Samsung Electronics (UK) Ltd.
  Samsung House, 225 Hook Rise South
  Surbiton, Surrey KT6 7LD
  Tel. : (0208) 391 0168
  Fax. : (0208) 397 9949
  < European Service Center & National Service >
  Stafford Park 12 Telford, Shropshire, TF3 3BJ
  Tel. : (0870) 242 0303
  Fax. : (01952) 292 033
  http://samsungservice.co.uk/

- **THAILAND :**
  HAI SAMSUNG SERVICE CENTER
  MPA COMPLEX BUILDING,1st-2nd Floor
  175 SOI SUEKSA VIDHAYA SATHON SOI 12
  SILOM ROAD ,SILOM,BANGRAK
  BANGKOK 10500
  TEL : 0-2635-2567
  FAX : 0-2635-2556
  http://www.samsungelectronics.co.th/

- **SOUTH AFRICA :**
  Samsung Electronics,5 Libertas Road, Somerset Office Park,
  Bryanston Ext 16. Po Box 70006, Bryanston,2021, South Africa
  Tel : 0027-11-549-1621
  Fax : 0027-11-549-1629
  http://www.samsung.co.za/

- **UKRAINE :**
  SAMSUNG ELECTRONICS REPRESENTATIVE OFFICE IN UKRAINE
  4 Glybochitska str.
  Kiev, Ukraine
  Tel. 8-044-4906878
  Fax 8-044-4906887
  Toll-free 8-800-502-0000
  http://www.samsung.com.ua/

- **SWEDEN/DENMARK/NORWAY/FINLAND :**
  Samsung Electronics AB
  Box 713
  S-194 27 UPPLANDS VÄSBY
  SVERIGE
  Bes?sadress : Johanneslundsv?en 4
  Samsung support Sverige: 020-46 46 46
  Samsung support Danmark : 8088-4646
  Samsung support Norge: 8001-1800
  Samsung support Finland: 0800-118001
  Tel +46 8 590 966 00
  Fax +46 8 590 966 50
  http://www.samsung.se/

- **HUNGARY :**
  Samsung Electronics Magyar Rt.
  1039, Budapest, Lehel u. 15-17.
  Tel: 36 1 453 1100
  Fax: 36 1 453 1101
  http://www.samsung.hu/

- **FRANCE :**
  SAMSUNG ELECTRONICS FRANCE Service
  Paris Nord 2
  66 rue des Vanesses
  BP 50116 Villepinte
  95950 Roissy CDG Cedex
  Tel : 08 25 08 65 65
  Fax : 01 48 63 06 38
  http://www.samsungservices.com/

- **PORTUGAL :**
  SAMSUNG ELECTRONICA PORTUGUESA S.A.
  Rua M?io Dioniso, Nº2 - 1?Drt. 2795-140 LINDA-A-VELHA
  Tel. 214 148 114/100 Fax. 214 148 133/128
  Free Line 800 220 120
  http://www.samsung.pt/

Service Center

- **NETHERLANDS/BELGIUM/LUXEMBOURG :**
  Samsung Electronics Benelux B. V.
  Fleminglaan 12 2289 CP Rijiswijk, NEDERLANDS
  Service and informatielijn ;
  Belgium :0800-95214, http://www.samsung.be/
  Netherlands : 0800-2295214, http://www.samsung.nl/

- **CHILE :**

  SONDA S.A.
  Teatinos 550, Santiago Centro, Santiago, Chile
  Fono: 56-2-5605000 Fax: 56-2-5605353
  56-2-800200211
  http://www.sonda.com/
  http://www.samsung.cl/

- **MEXICO :**
  Samsung Electronics Mexico S.A. de C.V.
  Saturno 44 Col. Nueva Industrial Vallejo
  Del. Gustavo A. Madero C.P. 07700
  Mexico D.F.
  Tel. 01 57 47 51 00
  Fax. 01 57 47 52 02
  RFC: SEM950215S98
  http://www.samsung.com.mx/

IMPORTADO POR:	SAMSUNG ELECTRONICS MEXICO S.A. DE C.V. SATURNO 44 COL. NVA. INDUSTRIAL VALLEJO DEL. GUSTAVO A. MADERO C.P. 07700 MEXICO D.F. TEL. 5747-5100 RFC: SEM950215S98
EXPORTADO POR:	SAMSUNG ELECTRONICS CO.,LTD. JOONG-ANG DAILY NEWS BLDG. 7 SOON-WHA-DONG CHUNG-KU, C.P.O BOX 2775, 1144 SEOUL, KOREA

Terms

- **Dot Pitch**

  The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

- **Vertical Frequency**

  The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate. Unit: Hz

  Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz. In this case, flickering of the screen can be detected. To avoid this problem, there is a Flicker-free Mode using a vertical frequency over 70 Hz.

- **Horizontal Frequency**

  The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

- **Interlace and Non-Interlace Methods**

  Showing the horizontal lines of the screen from the top to the bottom in order is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

- **Plug & Play**

  This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.

- **Resolution**

  The number of horizontal and vertical dots used to compose the screen image is called 'resolution'. This number shows the accuracy of the display. High resolution is good for performing multiple tasks as more image information can be shown on the screen.

  Example: If the resolution is 1024 X 768, this means the screen is composed of 1024 horizontal dots (horizontal resolution) and 768 vertical lines (vertical resolution).

Regulatory

- **FCC Information**

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television receptions, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

User Information

Changes or modifications not expressly approved by the party responsible for compliancecould void the user's authority to operate the equipment. If necessary, consult your dealeror an experienced radio/television technician for additional suggestions. You may find thebooklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.

Declaration of conformity for products Marked with FCC Logo

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
85 West Tasman Drive
San Jose, CA 95134 USA
Tel) 408-544-5124
Fax) 408-544-5191
Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the
computer convenience outlet is equal to or exceeds the monitor voltage rating. For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6-15P type (tandem blades) plug cap.

Regulatory

- **IC Compliance Notice**

  This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

  Cet appareil Numérique de classe Brespecte toutes les exigences du R?glemont ICES-003 sur les équipements produisant des interférences au Canada.

- **MPR II Compliance**

  This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.

- **European Notice (Europe only)**

  Products with the CE Marking comply with both the EMC Directive (89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:
  - EN55022:1998+A1:2000 - Radio Frequency Interference
  - EN55024:1998 - Electromagnetic Immunity
  - EN61000-3-2:1995+A1/A2:1998 - Power Line Harmonics
  - EN61000-3-3:1995 - Voltage Fluctuations

- **PCT Notice**

- **VCCI**

  This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

Regulatory

- **TCO'95-Ecological requirements for personal computers (TCO'95 applied model only)**

AB general requirements

AB2 Written Eco-document acompanying the products

Congratulations! You have just purchased a TCO'95 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and to the further development of environmentally-adapted electronic products.

Why do we have environmentally-labelled monitors?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment.The main problem as far as monitors and other electronic equipment are concerned is that environmentally harmful substances are used both in the products and during their manufacture. Since it has not been possible so far for the majority of electronic equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature.

There are also other characteristics of a monitor, such as energy consumption levels, that are important from both the working and natural environment viewpoints. Since all types of conventional electricity generation have a negative effect on the environment (acidic and climate-influencing emissions, radioactive waste, etc.) it is vital to conserve energy. Electronic equipment in offices consumes an enormous amount of energy, since it is often routinely left running continuously.

What does labelling involve?

This product meets the requirements for the TCO'95 scheme, which provides for international environmental labelling of monitors. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Naturskyddsforeningen (The Swedish Society for Nature Conservation) and NUTEK (The National Board for Industrial and Technical Development in Sweden).

The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands concern among other things restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons), and chlorinated solvents. The product must be prepared for recycling and the manufacturer is obliged to have an environmental plan, which must be adhered to in each country where the company conducts its operations policy. The energy requirements include a demand that the monitor after a certain period of inactivity shall reduce its power consumption to a lower level, in one or more stages. The length of time to reactivate the monitor shall be reasonable for the user. Labelled products must meet strict environmental demands, for example in respect of the reduction of electric and magnetic fields, along with physical and visual ergonomics and good usability.

Regulatory

TCO Development Unit 1996-11-29
On the page this folder you will find a brief summary of the environmental requirements met by this product. The complere environmental criteria document may be ordered from:
TCO Development Unit
S-11494 Stockholm
Sweden
Fax: +46 8 782 92 07
E-mail (Internet): development@tco.se
Current information regarding TCO'95-approved and labelled products may also be obtained via the Internet, using the address:
http://www.tco-info.com/
TCO'95 is a co-operative project between(3 logos)

Environmental Requirements
Brominated flame retardants are present in printed circuit boards, cables, wires, casings and housings. In turn, they delay the spread of fire. Up to thirty percent of the plastic in a computer casing can consist of flame retardant substances. These are related to another group of environmental toxins, PCBs, which are suspected to give rise to similar harm, including reproductive damage in fish eating birds and mammals, due to the bioaccumulative processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur. TCO'95 demand requires that plastic components weighing more than 25 grams must not contain organically bound chlorine and bromine.

Lead
Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. TCO'95 requirement Permits the inclusion of lead since no replacement has yet been developed.

Cadmium
Cadmium is present in rechargeable batteries and in the colour generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of cadmium. The colour-generating layers of display screens must not contain any cadmium.

Mercury
Mercury is sometimes found in batteries, relays and switches. Mercury damages the nervous system and is toxic in high doses. TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of mercury. It also demands that no mercury is present in any of the electrical or electronics components concerned with the display unit.

CFCs (freons)
CFCs (freons) are sometimes used for washing printed circuit boards and in the manufacturing of expanded foam for packaging. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on Earth of ultraviolet light with consequent increased risks of skin cancer (malignant melanoma).

- The relevant TCO'95 requirement: Neither CFCs nor HCFCs may be used during the manufacturing of the product or its packaging.

Regulatory

- **TCO'99-Ecological requirements for personal computers (TCO'99 applied model only)**

Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

This product meets the requirements for the TCO'99 scheme which provides for an international environmental and quality labelling labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO(The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen(The Swedish Society for Nature Conservation), Statens Energimyndighet(The Swedish National Energy Administration) and SEMKO AB.

The requirements cover a wide range of issuse: environment, ergonomics, usability, reduction of electric and magnetic fields, energy consumption and electrical safety.

Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, most of these potentially damaging substances sooner or later enter nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

What does labelling involve?

The environmental demands has been developed by Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation). These demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs(freons)and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

Regulatory

TCO Development
SE-114 94 Stockholm, Sweden
Fax: +46 8 782 92 07
Email (Internet): development@tco.se

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: http://www.tco-info.com/

Environmental requirements

Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

Cadmium**

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

Mercury**

Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit. There is however one exception. Mercury is, for the time being, permitted in the back light system of flat panel monitors as today there is no commercially available alternative. TCO aims on removing this exception when a Mercury free alternative is available.

CFCs (freons)

The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

Lead**

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

* Bio-accumulative is defined as substances which accumulate within living organisms.
** Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

Regulatory

. TCO'03-Ecological requirements for personal computers (TCO'03 applied model only)

Congratulations!

The display you have just purchased carries the TCO'03 Displays label. This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment.

Some of the features of the TCO'03 Display requirements:

Ergonomics

- Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

Energy

- Energy-saving mode after a certain time – beneficial both for the user and the environment
- Electrical safety

Emissions

- Electromagnetic fields
- Noise emissions

Ecology

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 000
- Restrictions on
  - chlorinated and brominated flame retardants and polymers
  - heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in co-operation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, please visit
www.tcodevelopment.com

Natural Color

- **Natural Color Software Program**

One of the recent problems in using a computer is that the color of the images printed out by a printer or other images scanned by a scanner or a digital camera are not the same as those shown on the monitor.
The Natural Color S/W is the very solution for this problem. It is a color administration system developed by Samsung Electronics in association with Korea Electronics & Telecommunications Research Institute (ETRI). This system is available only for Samsung monitors and makes the color of the images on the monitor the same as the printed or scanned images.
For more information, refer to Help (F1) in the software program.

How to install the Natural Color software
Insert the CD included with the Samsung monitor into the CD-ROM Drive. Then, the initial screen of the program installation will be executed. Click Natural Color on the initial screen to install the Natural Color software. To install the program manually, insert the CD included with the Samsung monitor into the CD-ROM Drive, click the [Start] button of Windows and then select [Execute].
Enter D:\color\eng\setup.exe and then press the key.
(If the drive where the CD is inserted is not D:\, enter the applicable drive.)

How to delete the Natural Color software program
Select [Setting]/[Control Panel] on the [Start] menu and then double-click [Add/Delete a program].
Select Natural Color from the list and then click the [Add/Delete] button.

Authority

Information in this document is subject to change without notice.
© 2003 Samsung Electronics Co., Ltd. All rights reserved.

Reproduction in any manner whatsoever without the written permission of Samsung Electronics Co., Ltd. is strictly forbidden.

Samsung Electronics Co., Ltd. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Samsung is the registered trademark of Samsung Electronics Co., Ltd.; *Microsoft*, *Windows* and *Windows NT* are registered trademarks of Microsoft Corporation; *VESA*, *DPMS* and *DDC* are registered trademarks of Video Electronics Standard Association; the *ENERGY STAR* name and logo are registered trademarks of the U.S. Environmental Protection Agency (EPA). As an ENERGY STAR Partner, Samsung Electronics Co., Ltd. has determined that this product meets the ENERGY STAR guidelines for energy efficiency. All other product names mentioned herein may be the trademarks or registered trademarks of their respective owners.